

REMARKS

Favorable reconsideration and allowance of this application are requested.

1. Discussion of Claim Amendments

By way of the amendment instructions above, claim 1 has been amended so as to limit "n" to 0 (i.e., by deletion of 1,2, 3, 4 or 5) in the formula. Claim 5 has thereby been canceled. In addition, certain claim terminology employed in claim 1 has been changed so as to be more consistent with US practices.

Claim 7 has been revised so as to be directed toward a coating which comprises a polymer prepared according to claim 1.

Therefore, following entry of this amendment, claims 1-4 and 6-7 will remain pending herein for which favorable reconsideration is requested.

2. Response to 35 USC §§101/112 Rejections

Claim 7 has been amended so as to be compliant with 35 USC §§101 and 112. Accordingly, withdrawal of the rejections based on such statutory provisions is believed to be in order.

3. Response to Art-Based Rejections

As noted above, the amendments to pending claim 1 limit the oxazine compounds to monofunctional compounds only. As is clear from the description, the use of such monofunctional compounds will not lead to branching or crosslinking. However, a major effect of the use of monofunctional oxazines as defined by pending claim 1 is that it reacts faster with the carboxyl groups, thereby reducing the number of carboxyl groups, with less side reactions as e.g. discoloration, as compared to many other reactants, (page 2, 17-19) while retaining the viscosity of the polymer, and

resulting in a polymer composition showing an improved hydrolytic stability (page 4, 24-30), very suitable for applications in an environment comprising with water, either as liquid or gas, or acid (page 6,1-3).

Claim 1 patentably differs from Matsumura (USP 4,910,265) in that the polymers of claim 1 have carboxyl groups, with which the oxazine rings react, and that the oxazine compound is monofunctional. Moreover, the reaction is carried out in an extruder above 100⁰C.

Matsumura is focused on thermoset resins and does not disclose monofunctional oxazines, only 2-4 (page 4, formula I, and page 5, line 1). Matsumura also does not disclose carboxyl functional resins, only hydroxyl and amino functional resins. The thermoset resins of Matsumura are prepared in a reaction vessel -- not an extruder.

Pending claim 1 also patentably differs from Harashina (US 2004/0254270) in that it does not disclose carboxyl functional resins, or the reaction thereof with monofunctional oxazines in an extruder above 100⁰C.

Therefore, pending claim 1 is suggested to be novel in view of both Matsumura and Harashina.

Moreover, pending claim 1 is also considered to be patentably unobvious in view of Matsumura and Harashina. In this regard, Matsumura is focused on the preparation of thermoset resins. Harashina is focused on the preparation of flame retardant compounds. Neither of these publications is therefore focused on improvement of hydrolytic stability with absence or reduction of discoloration. As such, neither publication would be consulted by an ordinarily skilled person to address such a problem, and neither publication provides any incentive to do so. And even if they would be combined, this would not lead to a modification whereby the hydroxyl groups or amine groups are changed into carboxyl groups and the 2 or higher functional

oxazine groups are changed into mono-functional groups as defined by the present applicants' claims.

In view of the above, therefore, withdrawal of all art-based rejections advanced under 35 USC §§102(b) and/or 103(a) is believed to be in order.

4. Information Disclosure Statement

At the outset, applicants appreciatively note the Examiner's consideration of all the information contained in the International Search Report ("ISR"). A fresh PTO/SB/08a form is being submitted which provides a more complete citation to the ISR.

The Examiner's attention is also directed to EP 0581642 (D3) and WO 96/34909 which were cited during prosecution of applicants' counterpart European application. Copies of such citations are being submitted currently herewith and are noted on an the accompanying form PTO/SB/08a. The fee required by Rule 97(c) is also being submitted.

Each of the EP and WO citations noted above discloses chain extension of polymers with bisfunctional oxazines and bisoxazolines, with the latter using such compounds in combination with bislactam. Neither citation discloses monofunctional oxazines.

Consideration of such information during the prosecution of the subject application is requested.

5. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed

LOONTJENS
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herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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